

Operator's Manual



SETTING UP INSTRUCTIONS
PARTS LIST

PARTS

McCORMICK

Cub-28-A

Tractor Disk Harrow
(Lift-Type)

for use with

Farmall Cub Tractor

INTERNATIONAL HARVESTER COMPANY

180 North Michigan Ave.

Chicago 1, Illinois, U.S.A.



Farm Accidents can be prevented with your help

No accident-prevention program can be successful without the wholehearted co-operation of the person who is directly responsible for the operation of equipment.

To read accident reports from all over the country is to be convinced that a large number of accidents can be prevented only by the operator anticipating the result before the accident is caused and doing something about it. No power-driven equipment, whether it be transportation or processing, whether it be on the highway, in the harvest field or in the

industrial plant, can be safer than the man who is at the controls. If farm accidents are to be prevented—and they can be prevented—it will be done by the operators who accept a full measure of their responsibility.

It is true that the designer, the manufacturer, the safety engineer can help; and they will help, but their combined efforts can be wiped out by a single careless act of the operator.

It is said that *"the best kind of a safety device is a careful operator."* We ask you to be that kind of an operator.

TO THE OWNER

All illustrations and descriptive matter in this publication apply to International Harvester products sold under the McCormick, McCormick-International, McCormick-Deering, or McCormick-Deering International trade name.

The Cub-28-A Lift-Type Single-Cut Disk Harrow is a small machine designed to meet the need for a mounted harrow for use with the Farmall Cub tractor.

This machine is lifted and lowered by Farmall Touch-Control and a rear rockshaft for transport and for turning in the fields. It is available in four and five-foot sizes with either 16 or 18-inch notched or plain disk blades, and may be quickly attached to or removed from the tractor by means of two standard drilled pins and cotters. This disk harrow may also be left on the tractor and locked in a raised position while the tractor is being used with other tools such as the leveling and grader blade, the direct-mounted plow, etc. Adjustable lifting straps are provided to compensate for a variety of tire sizes. Another feature is the angular adjustment of the

disk gangs. A good-sized weight box is furnished as regular equipment.

You are urged to consult your International Harvester dealer concerning unusual field conditions or special crops. Within the International Harvester company are men who have spent years in research and study of your problems. Let the experience of these men serve you.

Be sure to read the Adjusting and Operating Instructions in this manual. Check each item referred to and acquaint yourself with the adjustments required to do a good job and for getting maximum, trouble-free service from your machine.

Remember, a harrow which is properly lubricated and adjusted saves time, labor and fuel costs.

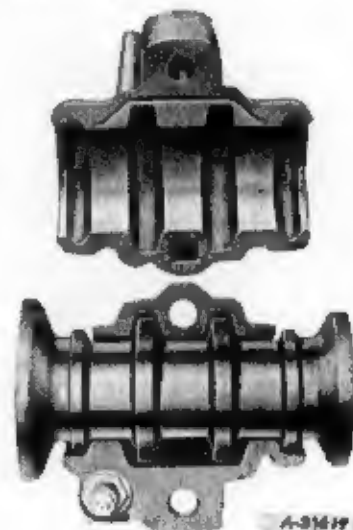
INSTRUCTIONS FOR ADJUSTING AND OPERATING

(Setting Up Instructions are on page 6)

LUBRICATION

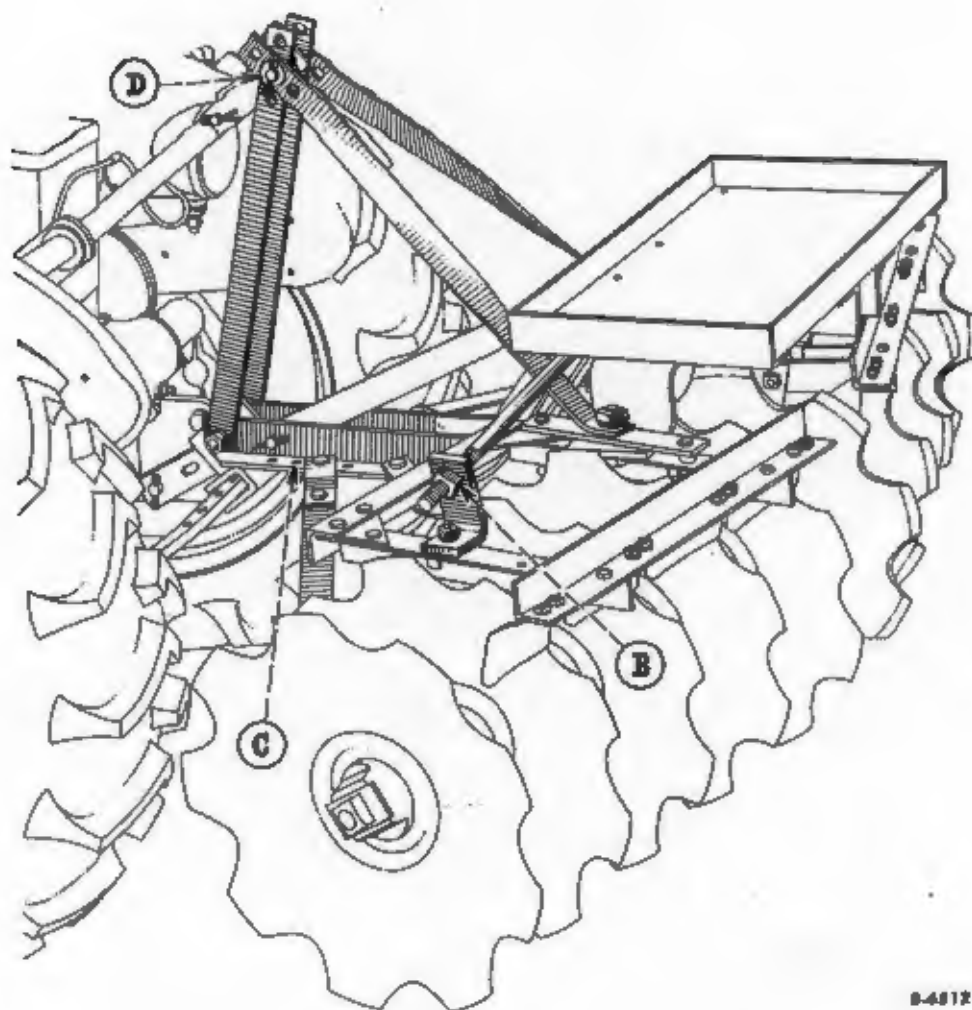
The bearings on this machine are provided with large oil reservoirs and pressure gun fittings. Before operating, all bearings should be thoroughly lubricated.

Fill the pressure gun with pressure gun lubricant and pump an ample supply into the bearings. Repeat this operation daily.



Illustr. 1

ADJUSTMENTS



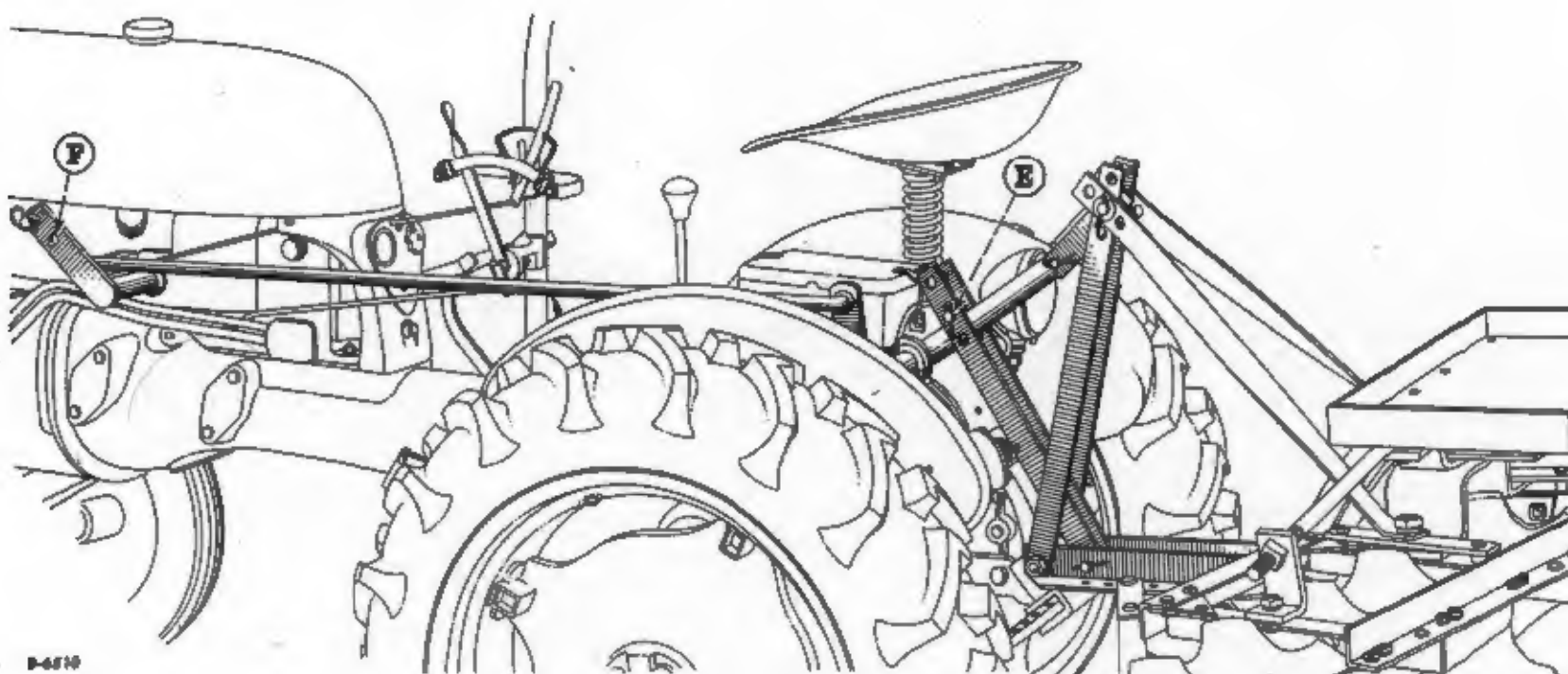
9-4812

Illustr. 2

In almost every type of field work, the gangs should run level and cut to a uniform depth. If it is necessary to adjust the gangs, shorten or lengthen the gang support rod. Turning the lock nuts at "B" (Illustr. 2) raises the outer end of the gangs by shortening the support rod or lowers the outer end of the gangs by lengthening the support rod. When the gangs are level, tighten the lock nuts.

The degree of angle of the gangs can be adjusted to meet varying soil conditions by changing the selection of holes at "C" (Illustr. 2) in the drawbar angles.

Several holes are provided at "D" (Illustr. 2) in the adjustable lifting straps to compensate for the variety of tire sizes available for the Farmall Cub tractor.



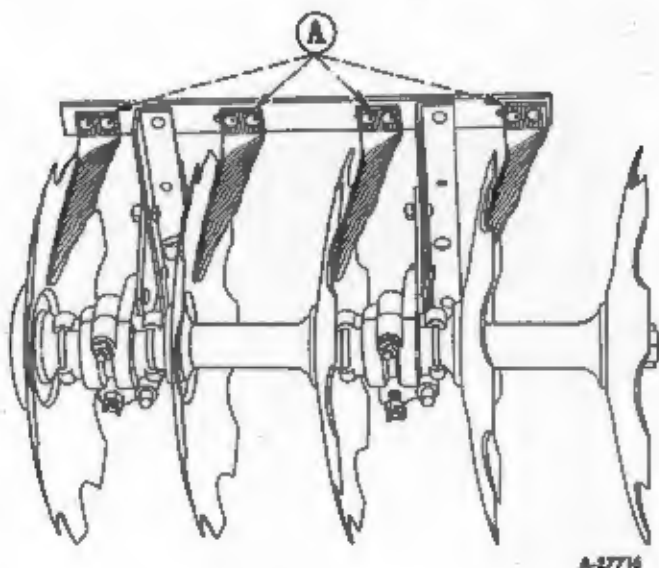
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Illustr. 3

The harrow may be locked on the tractor in a raised position. This will free the touch-control arm for use with other tools. To lock the harrow in the raised position (see *Illustr. 3*),

raise the locking straps to the rocker arm and insert the pin and cotter as shown at "E". To release the touch-control arm for other uses, remove the cotter pin from the lift rod at "F".

FULL BLADE SCRAPERS



Illustr. 4

Adjust the scraper blades by means of the bolts and slotted holes at "A", so they just clear the disks at the center. See Illustr. 4.

INSTRUCTIONS FOR SETTING UP

(Adjusting and Operating Instructions are on page 3)

Remove all wires and arrange the parts conveniently.

Lubricate all bearings and moving parts as you proceed, and see that they work freely.

Bolts must be used in the holes in which they are found, or in the parts to which they are attached, unless otherwise shown.

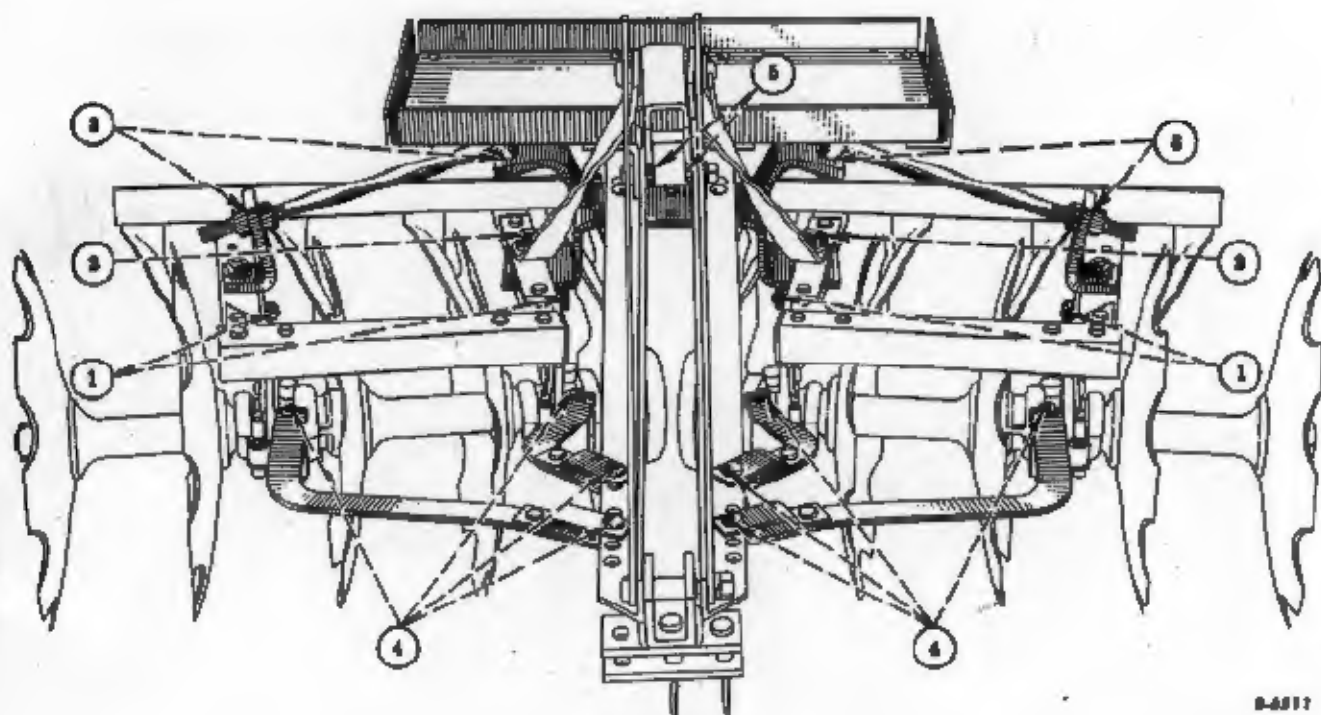
Shaded portions in the illustrations show parts to be assembled; these must be placed on the machine in the order numbered.

Whenever the terms "left" and "right" are used, it should be understood to mean from a position behind and facing the machine.

We reserve the right to make changes or improvements in the design or construction of any part without incurring the obligation to install such changes on any machine previously delivered.

SPECIFICATIONS

Size	No. of Disks	Size of Disks
4-ft.	8	16" or 18" solid or cut-out
5-ft.	10	16" or 18" solid or cut-out



Illustr. 5

1. Using the bolts provided, attach the gang frames to the bearing standards.

2. Place the gangs in their relative position. Bolt the draft angle assembly to the gangs using the $\frac{3}{4} \times 2\text{-}1\frac{1}{2}$ " machine bolts provided.

3. Attach the gang support rods to the cars on the swivel and rod bracket and to the outer

support brackets as shown. Note: Bolt the outer support brackets to the gang frame after the brackets are attached to the rods.

4. Bolt the outer and inner swivel braces to the bearings and attach them to the draft angles with drilled pins as shown.

5. Attach the weight box to the draft angles with the four bolts provided.

PARTS LIST AND ILLUSTRATIONS

The following pages contain parts lists and "exploded" view illustrations of the various units disassembled so that parts wanted may be readily located. Reference numbers only are shown in the illustrations. To avoid errors and delays, when ordering parts always use the regular "Part Number" shown with the "Ref. No." Do not use the reference numbers when ordering parts.

WHEN THE PART NUMBER IS NOT KNOWN: Use the "Index to Units" below and refer to the illustration of the unit on which the part is used. The illustrations show reference numbers which appear in the accompanying reference list. The reference list contains the part number with a "noun first" or basic description.

WHEN THE PART NUMBER IS KNOWN: Use the "Numerical Index" at the back of the manual. This index shows the page number on which the part is listed. The reference number, which is listed with the part number, may be used for referring to the illustration.

Do not order from the illustration only; refer to the list also.

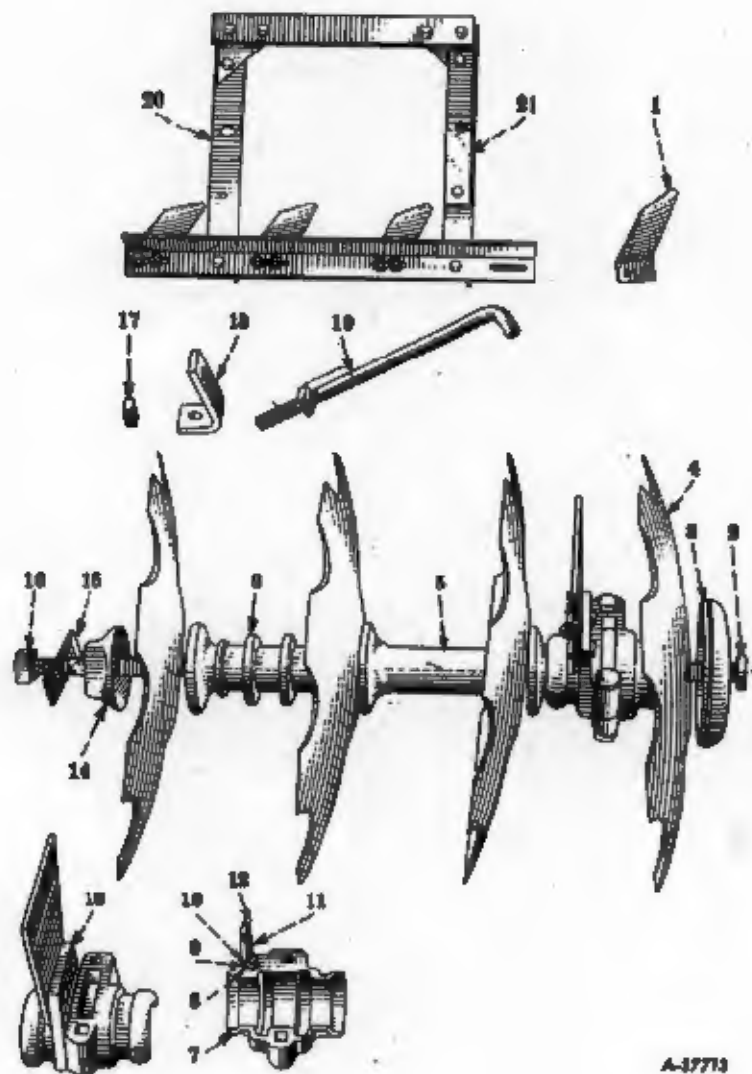
Attaching parts, such as bolts, cap screws, lock washers, nuts, cotter pins, etc. are listed beneath and indented from the part they attach. Attaching parts must be ordered separately as they are not furnished with the part they attach.

INDEX TO UNITS

Description	Page
Gang Frame and Disks	8, 9
Drawbar Locking Straps	11
Draft Angles and Weight Box	10

Numerical Index to Part Numbers will be found on page 11,
List of Abbreviations will be found on page 11.

GANG FRAME AND DISKS



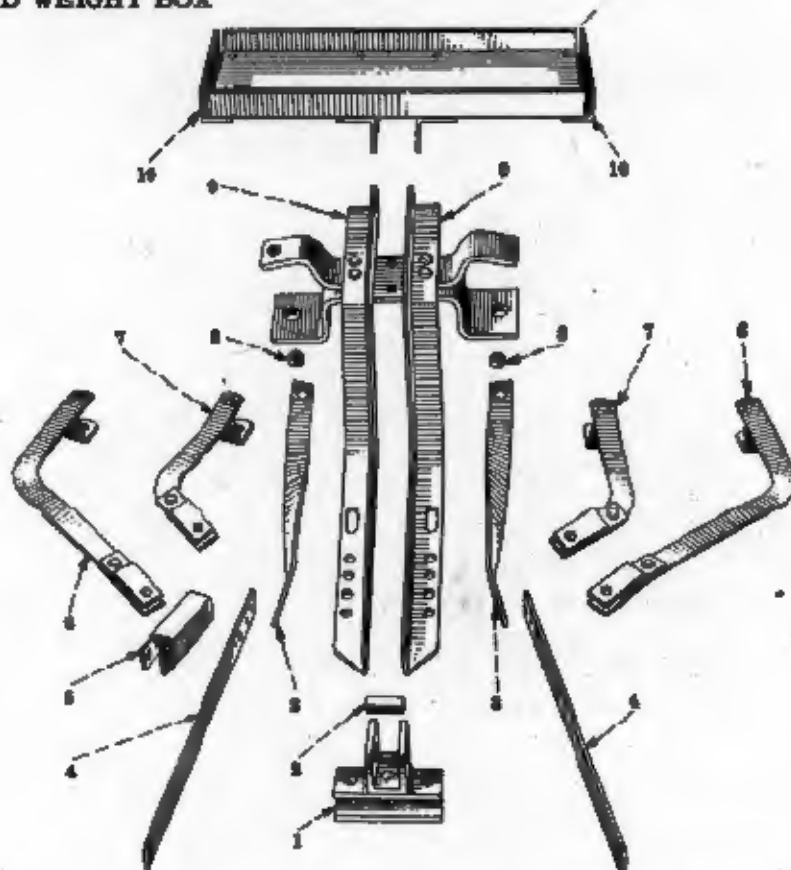
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GANG FRAME AND DISKS - Continued

Index to Reference Numbers shown in illustration on opposite page.

Ref. No.	Part Number	Description
1	495 868 R1	SCRAPER, left (4-ft. harrow - 3 used; 5-ft. harrow - 4 used).
	495 869 R1	SCRAPER, right (4-ft. harrow - 3 used; 5-ft. harrow - 4 used).
	15 001 R11	BOLT, carriage, 5/16-18NC x 7/8", w/NUT (4-ft. harrow - 12 used; 5-ft. harrow - 16 used).
	103 320	WASHER, lock, 5/16" (4-ft. harrow - 12 used; 5-ft. harrow - 16 used).
2	11 036	BOLT, arbor (4-ft. harrow - 2 used).
	11 037	BOLT, arbor (5-ft. harrow - 2 used).
3	P 4 186	WASHER, head, arbor bolt (2 used).
4	9 318 1/2	BLADE, disk, solid (18") (4-ft. harrow - 8 used; 5-ft. harrow - 10 used).
	11 944 1/2	BLADE, disk, cut-out (18") (4-ft. harrow - 8 used; 5-ft. harrow - 10 used).
	34 073	BLADE, disk, solid (16") (4-ft. harrow - 8 used; 5-ft. harrow - 10 used).
	13 260 1/2	BLADE, disk, cut-out (16") (4-ft. harrow - 8 used; 5-ft. harrow - 10 used).
5	PA 821	SPOOL, spacing (4-ft. harrow - 2 used; 5-ft. harrow - 4 used).
6	P 4 128	SPOOL, bearing (4 used).
7	PA 4 149	BEARING, lower right (2 used).
	PA 4 150	BEARING, lower left (2 used).
8	650 131 R1	CAP, oil pipe (4 used).
9	P 13 428	WASHER, leather, oil pipe (8 used).
10	PA 13 345	NUT, lock, oil pipe (4 used).
11	P 34 685	PIPE, oil (4 used).
12	109 353	FITTING, lubrication, 1/8-27 NPT 30° elbow (4 used).
13	650 788 R91	STANDARD, bearing, left, assembly (2 used).
	650 789 R91	STANDARD, bearing, right, assembly (2 used).
	15 174 R11	BOLT, carriage, 1/2-13NC x 3-1/2", w/NUT (4 used).
	12 638 R1	BOLT, machine, dld., 1/2-13NC x 3-3/4" (4 used).
	L 64	NUT, horned, 1/2-13NC (4 used).
	103 374	PIN, cotter, 3/32 x 1" (4 used).
	103 323	WASHER, lock, 1/2" (4 used).
14	P 4 166	WASHER, arbor bolt nut (2 used).
15	P 34 100	LOCK, arbor bolt nut (2 used).
16	105 612	NUT, arbor bolt (2 used).
17	105 611	NUT, support rod (4 used).
18	650 664 R1	BRACKET, gang support rod, outer (2 used).
	13 272 R11	BOLT, machine, 1/2-13NC x 1-1/4", w/NUT (2 used).
	105 608	WASHER, lock, 1/2" (2 used).
	495 865 R2	BUSHING, filler, cross angle (2 used).
19	650 653 R1	ROD, support, gang frame (2 used).
	103 386	PIN, cotter, 1/8 x 1-1/4" (2 used).
20	650 786 R91	FRAME, gang, left (5-ft. harrow - 1 used).
	650 787 R91	FRAME, gang, right (5-ft. harrow - 1 used).
	650 906 R91	FRAME, gang, left (4-ft. harrow - 1 used).
	650 907 R91	FRAME, gang, right (4-ft. harrow - 1 used).
	13 256 R11	BOLT, machine, 7/16-14NC x 1", w/NUT (8 used).
	103 322	WASHER, lock, 7/16" (8 used).
21	650 661 R1	STRAP, front swivel bracket (2 used).
	13 291 R11	BOLT, machine, 3/8-16 NC x 1-1/2", w/NUT (4 used).
	650 675 R1	SPACER, swivel bracket strap, front (2 used).
	650 676 R1	SPACER, swivel bracket strap, rear (2 used).
	103 321	WASHER, lock, 3/8" (4 used).

DRAFT ANGLE AND WEIGHT BOX



Ref. No.	Part Number	Description
1	650 683 R92	CLEVIS, hitch.
	13 491 R11	BOLT, machine, 5/8-11NC x 4", w/NUT.
	108 638	PIN, cotter, 3/16 x 1-1/8" (2 used).
	453 116 R1	PIN, std-hd., dld., 5/8 x 2-3/8" (2 used).
	103 325	WASHER, lock, 5/8".
2	650 677 R1	BUSHING, hitch clevis.
3	650 685 R2	STRAP, lifting, rear left.
	650 686 R2	STRAP, lifting, rear right.
4	650 684 R2	STRAP, lifting, front (2 used).
	108 638	PIN, cotter, 3/16 x 1-1/8".
	3 102	PIN, std-hd., dld., 5/8 x 3-1/2". <i>KAL 650944 R91</i>
5	650 687 R1	CLEVIS, lifting.
	108 638	PIN, cotter, 3/16 x 1-1/8".
	3 490 B	PIN, std-hd., dld., 1/2 x 2-1/4".
6	650 819 R91	BRACE, swivel, outer left (welded and riveted).
	650 820 R91	BRACE, swivel, outer right (welded and riveted).
	108 638	PIN, cotter, 3/16 x 1-1/8" (2 used).
	837	PIN, std-hd., dld., 5/8 x 1-1/2" (2 used).
7	650 817 R91	BRACE, swivel, inner left (welded and riveted).
	650 818 R91	BRACE, swivel, inner right (welded and riveted).
	108 638	PIN, cotter, 3/16 x 1-1/8" (2 used).
	837	PIN, std-hd., dld., 5/8 x 1-1/2" (2 used).
8	495 827 R1	SPACER, gang swivel bracket (2 used).
9	650 790 R91	ANGLE, draft.
	13 381 R11	BOLT, machine, 3/4-10NC x 2-1/2", w/NUT (2 used).
	103 325	WASHER, lock, 3/4" (2 used).
10	650 791 R91	BOX, weight.
	13 272 R11	BOLT, machine, 1/2-13NC x 1-1/4", w/NUT (4 used).
	103 323	WASHER, lock, 1/2" (4 used).

DRAWBAR LOCKING STRAPS



Ref. No.	Part Number	Description
1	650 816 R2 108 638 PR 146 PG 146	STRAP, locking, drawbar (2 used). PIN, cotter, 3/16 x 1-1/8" (2 used). PIN, std-hd., dld., 5/8 x 2-1/2". PIN, std-hd., dld., 5/8 x 3".

NUMERICAL INDEX

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" 9 318 1/2	9	109 353	9	P 4 186	9	13 491 R11	10	650 687 R1	10
" 11 036	9	B		PA 13 345	9	15 001 R11	9	650 786 R91	9
" 11 037	9			P 13 428	9	15 174 R11	9	650 787 R91	9
" 11 944 1/2	9	3 490 B	10	P 34 073	9	453 116 R1	10	650 788 R91	9
" 13 260 1/2	9			P 34 100	9	495 827 R1	10	650 789 R91	9
103 320	9	L		P 34 685	9	495 865 R2	9	650 790 R91	10
103 321	9					495 868 R1	9	650 791 R91	10
103 322	9	L 64	9	Q		495 869 R1	9	650 816 R2	11
103 323	9			Q 837	10	650 131 R1	9	650 817 R91	10
103 323	10	P				650 653 R1	9	650 818 R91	10
103 325	10			R		650 661 R1	9	650 819 R91	10
103 374	9	PG 146	11	12 638 R1	9	650 664 R1	9	650 820 R91	10
103 386	9	PR 146	11	13 256 R11	9	650 675 R1	9	650 906 R91	9
105 608	9	PA 821	9	13 272 R11	9	650 676 R1	9	650 907 R91	9
105 611	9	P 4 128	9	13 272 R11	10	650 677 R1	10		
105 612	9	PA 4 149	9			650 683 R92	10		
						650 684 R2	10		

LIST OF ABBREVIATIONS

dld drilled	std-hd. standard head
NC National Coarse Thread	w/ with
NPT National Pipe Thread	



Always Use Parts

The finest engineering skill and the most advanced manufacturing methods go into all International Harvester products. Each part is built to our own high manufacturing standards. These are important things to remember when wear and tear make new parts necessary.

IH parts retain and continue the original performance you get when you choose International Harvester quality products. When replacing parts, don't handicap your equipment. For your

protection, be sure to use IH SERVICE PARTS.

International Harvester dealers' bins are well stocked with IH parts. These parts departments are well-equipped service stations staffed by factory-trained servicemen. Dealers are backed in every case by the full facilities of a nearby International Harvester District Office.

When selecting new farm operating equipment, keep in mind the protective service rendered by the International Harvester dealer in your community.